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AMSAT NEWS SERVICE
ANS-253.01

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat dot org.

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ANS-253.01 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 253.01
>From AMSAT HQ KENSINGTON, MD.
September 10, 2017
To All RADIO AMATEURS
BID: $ANS-253.01

Worst Solar Cycle for HF Since Advent of Radio

There is an HF propagation anomaly currently in progress for this week, that might give us a temporary boost.
Look for unusually strong, short term, band openings via F2 layer and Sporadic-E (Es) in the 14 MHz to 54 MHz range.

We are near the bottom of our 11-year-long Solar Cycle 24, but today we
are seeing space weather that is similar to the higher part of this cycle.
A recent, fast-growing earth-targeted sunspot, combined with increased
x-ray flux, is associated with the anomaly.
The x-ray flux has reached sustained M-class levels, and could impulse
higher to X-class bursts.

This can also temporarily cause short-term HF blackouts for NVIS and regional HF communications below 15 MHz.
An R2 level blackout just happened a couple hours ago, which obliterated
the mid-day 7 MHz ham radio nets in North America.

At this moment, we currently have highly unusual solar numbers for this
part of the cycle:

Sunspot Number = 96
Solar Flux = 183
X-ray Flares = M5
K-index Kp = 4
A-index = 14

That Solar Flux is very high for the valley of the solar cycle we are in.
The highest solar flux in this cycle, Solar Flux =237, happened during
the peak of this cycle in January 2014.

[ANS thanks Bonnie KQ6XA for the above information]

ARRL PR Poster Features Amateur Radio in Space

The ARRL offers a series of six posters that promote Amateur Radio to the general public. These were originally designed by ARRL for the 2017 National Scouting Jamboree, but may be used for any outreach effort. Each poster is 11" x 17".

One of the posters features amateur radio in space.
The six posters are based around the theme, "Ham Radio Is..."

Those themes are:

+ Adventure (Portable operating of all kinds)
+ Discovery (Making/Building/DIY)
+ Friendship (Community and Mentoring)
+ Out Of This World (space communications/satellites)
+ Ready (Publc Service)
+ The Game (Contesting and Awards)

A link to ARRL's "What Is Ham Radio" page is provided as both a URL and a QR code on each poster.

The posters are available for free download in PDF format.
http://www.arrl.org/pr-posters

We suggest printing on high-gloss paper and framing them for maximum effect.

[ANS thanks the ARRL for the above information]

Last Week of Discounted 2017 Space Symposium Registration

September 14 is the last day for the discounted price to register for the 2017 AMSAT Space Symposium which will be held on Friday through Sunday, Oct 27, 28, 29, 2017 in Reno, Nevada at the Silver

Legacy Resort, 407 N Virginia Street, in Downtown, Reno.

Symposium Registration (including a copy of the Proceedings)
+ Through September 14 -- $45
+ Starting September 15 -- $50
+ At the door   -- $55

You can register for the 2017 Space Symposium, the Saturday Evening Banquet, and the Sunday Morning Area Coordinators breakfast in the store:
https://www.amsat.org/shop/

You must make your hotel reservations at the Silver Legacy at this link:
https://www.amsat.org/symposium-hotel/ (block code ISAMSAT)
The hotel phone number is 1-800-687-8733

The 2017 AMSAT Space Symposium and Annual Meeting features:
+ Space Symposium with Amateur Satellite Presentations
+ Operating Techniques, News, & Plans from the Amateur Satellite World
+ Board of Directors Meeting open to AMSAT members
+ Opportunities to Meet Board Members and Officers
+ AMSAT-NA Annual General Membership Meeting
+ Auction, Annual Banquet, Keynote Speaker and Door Prizes !!

Our Keynote Speaker this year is Mr. Garrett Skrobot, Sr. Mission Manager of the Educational Launch of Nanosatellites program, or ELaNa, at NASA Headquarters.

Additional information about the 2017 AMSAT Symposium will be posted on the AMSAT web site, www.amsat.org

The Silver Legacy is a 4-star Resort/Hotel/Casino which is an iconic 42-story hotel with its massive round dome and spires centered in downtown Reno.

Some of the perks include:
+ Free parking for attendees.
+ Free transportation to/from the airport (10-minute shuttle ride).
+ Complimentary WiFi. + Multiple alternate activities and attractions are in the Reno area.
+ We are working on tours of Virginia City and Lake Tahoe.

[ANS thanks the 2017 AMSAT Symposium Folks for the above information]

AMSAT-NA BoD Ballots Due At AMSAT Office By September 15, 2017

Ballots for AMSAT-NA's Board of Directors were mailed to members in good standing on July 15. Members are encouraged to complete their ballots and return them as soon as possible. Ballots must be received at the AMSAT office by September 15 in order to be counted.

This year AMSAT-NA will be electing four voting members of the Board of Directors. These will go to the four candidates receiving the highest number of votes. In addition, there will be one alternate chosen, based on the next highest number of votes received.

The 2017 candidates, in alphabetical order by last name are:

Jerry Buxton, N0JY
Clayton Coleman, W5PFG

Drew Glasbrenner, KO4MA
Peter Portanova, W2JV
Paul Stoetzer, N8HM

Election of Board members is both an obligation as well as an opportunity by our membership to help shape the future direction of AMSAT. Please take the time to review the candidate statements that will accompany the ballot and determine who you wish to see on the Board. You have the option to vote for up to four candidates.

[ANS thanks AMSAT Office for the above information]

University of Michigan GTO Cubesat Flight Receives IARU Coordination

The IARU has announced frequency coordination at 437.485 MHz for DSM-BARC, a 2U CubeSat developed by the University of Michigan.

The primary objective is to raise the technology readiness level of the EPS, CDH and communications systems in a Geosynchronous Transfer Orbit.

The satellite is a 2U CubeSat compatible with the Tyvak NLAS Mk.ll deployer. The satellite is 227mm x 100mm x 100mm in size while stowed and has a mass of 1.28 kg (Max: 2.66 kg).

There is one deployable reflective panel on the 227mm long Negative X Face of the satellite that will deploy once in orbit, as well as the deployable UHF antenna, which will deploy out of the same face. The satellite will tumble in orbit and does not have an attitude control or stabilization system.

The UHF downlink will transmit 9k6 GMSK and AX25 telemetry. The launch from Cape Canaveral on an ULA flight with initial parameters:

+ Apogee – 35786 km
+ Perigee – 185 km
+ Inclination – 27 deg
+ Period – 10.5 hrs.

Fellow payloads are expected to be from: CubeSats from University of Texas, University of Louisiana and Purdue University.

More info available at http://m-barc.com/our-story/
The United Launch Alliance announcement can be found at:
http://www.ulalaunch.com/ula-announces-2016-cubesat-stem-winners.aspx

[ANS thanks the IARU Satellite Coordinator and the University of Michigan for the above information]

UK Storm Names for 2017-18

The first storm of the year will be female and will be named 'Aileen', the gender of the first storm alternates each year and follows Angus in the 2016-17 season.

Surveys conducted after named storms in 2016/17 have shown further increases in awareness and action taken in response to people hearing of a named storm. Storm Doris for example achieved an 89% awareness score with 94% of those responders finding the severe weather warning useful. 82% of people that took action ahead of Storm Doris felt they

were right to do so.

Derrick Ryall, Head of Public Weather Services at the Met Office, said: "Last year was another successful pilot of the storm naming project and it's great to be now making it operational. Naming storms has been proved to raise awareness of severe weather in the UK, crucially prompting people to take action to prevent harm to themselves or their property."

Gerald Fleming, Head of Forecasting at Met ireann, said: "Last winter was a very quiet one weather-wise and we only worked our way through five named storms, from Angus to Ewan. While it is too early to say whether the coming winter will be a stormy one or a quiet one we are prepared with a whole new set of 21 names for whatever nature may throw at us. As before Met ireann forecasters will work in close co-operation with our colleagues from the UK Met Office to keep all the peoples of these islands warned of impending severe weather."

The names for the next year have once again been compiled using suggestions submitted by the public combined with names proposed to Met ireann. As in previous years, Q; U; X; Y and Z will not be used to comply with international storm naming conventions.

Note: Fionn is pronounced 'Fyunn' and Niall 'Nye-ul'

A storm will be named on the basis of 'medium' or 'high' impacts from wind but also include the impacts of rain and snow, i.e. storms will be named for weather systems which we expect an Amber or Red warning will eventually be issued by Met ireann and/or the Met Office's National Severe Weather Warning Service (NSWWS).

The 2016-17 season saw five storms named, from Angus in late November to Ewan at the end of February. In comparison eleven storms were named in the 2015-16 season, from Abigail in mid-November to Katie at the end of March.

This year's names will be announced at the European Conference for Applied Meteorology and Climatology in Dublin at 15:00 6 September 2017. The start of this year's storm season looks to be getting off to an unsettled start, with low pressure moving in from the west towards the end of the week and dominating our weekend weather.

You can find out the current forecast in your area using our forecast pages and by following us on Twitter and Facebook, as well as using our mobile app which is available for iPhone from the App store and for Android from the Google Play store.

Additional information can be found by visiting http://www.metoffice.gov.uk/

[ANS thanks the UK Met Office for the above information]

Students from India & Russia build SSTV CubeSAT

The Times of India reports students from Russia and India are building
an amateur radio satellite that will transmit SSTV images from space. The 1U CubeSat Iskra-5 is being built by 20 students from Moscow Aviation
Institute and 9 from Indian cities like Chennai and Bangalore through Space Kidz India to mark the 70th anniversary of diplomatic relationship

between the two countries.

The satellite will be transported to the
International Space Station by mid-October, 2017 through cargo
spacecraft
from where it will be placed in orbit by a cosmonaut during a
spacewalk.
The Iskra satellites were a series of Soviet amateur communication
satellites built by students and radio amateurs at the Moscow
Aviation
Institute in the early 1980s.

Srimathy Kesan, founder, Space Kidz India said that the subsystems
in the
satellite being built in MAI is made by Russian students
while the outer cube has been designed by Indian students.

[ANS thanks AMSAT UK for the above information]

AA5PK Awarded Grid Master Award #4

The Grid Master Award is sponsored by WA4HFN and WA4NVM to encourage
radio amateur operators to get on the air and make contacts. To
qualify
for the Grid Master Award you must make confirmed satellite contact
with all 488 grids in the U.S.

Prior Grid Master Award winners include:
+ #1 -- John Papay, K8YSE
+ #2 -- Doug Papay, KD8CAO
+ #3 -- Rick Tillman, WA4NVM

This week Damon Runion, WA4HFN, announced that Grid Master Award #4
has been awarded to Glenn Miller, AA5PK.

For more information Damon requests you send an e-mail to him at
the address listed on QRZ.com.

These awards are free, Damon and Rick only ask that you make a
donation to AMSAT NA.

[ANS thanks Damon Runion, WA4HFN for the above information]

Satellite Shorts From All Over

Route 66 OTA - W6D Through September 17th

Christy, KB6LTY will be operating again this year as W6D
Victorville, CA on the Sats, on as many birds as she can
(FM/transponder/packet/no CW)throughout the week from home QTH DM14.
Citrus Belt ARC is hosting the event again making this the 18th year.
for more info on the event: http://w6jbt.org/?page_id=15
see you next week for this fun event.
Christy KB6LTY

[ANS thanks Christy KB6LTY for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Chris Bradley,AA5EM
aa5em at amsat dot org

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